UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/706,190	11/12/2003	William R. Kennedy	KDY 9497	5982

321 7590 07/19/2006

SENNIGER POWERS
ONE METROPOLITAN SQUARE
16TH FLOOR
ST LOUIS, MO 63102

EXAMINER	
KYLE, MICHAEL J	

ART UNIT	PAPER NUMBER
3677	

DATE MAILED: 07/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/706,190
Filing Date: November 12, 2003
Appellant(s): KENNEDY ET AL.

Michael G. Munsell
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed April 26, 2006, appealing from the Office action mailed November 29, 2005.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

2,804,329	LANDIS	08-1957
4,082,231	KENNEDY ET AL	04-1978
5,638,709	CLAVIN	06-1997

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 28-34 are rejected under 35 U.S.C. 102(b) as being anticipated by Landis (U.S. Patent No. 2,804,329). With respect to claims 28 and 32 , Landis discloses a door system comprising first (not shown in drawings, but inherent) and second (26) door frame members and a door (1) hingedly mounted to the first frame member for swinging outwardly between open and closed positions. Landis also discloses a keeper (25) disposed on the second frame member

(26), and a trigger actuated latch mechanism (6, 7, 24). The trigger actuated latch mechanism includes a detent (24) engageable with the keeper (25) and a trigger (6, 7) operably connected to the detent. The detent, in the latched position is biased toward an unlatched position (by spring 28). Actuation of the trigger (6, 7) causes the detent (24) to move from a latched position, where it is engaged with the keeper, to an unlatched position allowing the door (1) to be opened.

With respect to claim 29, Landis discloses the first frame member is in opposed to the second frame member.

With respect to claim 30, Landis discloses all elements noted above, and further discloses at least two triggers (6, 7) operably connected to the detent in a latched position. One trigger is located on an inward side of the door, and the other on an outward side. Actuation of either trigger will cause the detent to move from the latched position to the unlatched position.

With respect to claims 31 and 33, Landis discloses a sear (9) for holding the detent in the latched position. Actuation of the trigger causes release of the detent of the sear.

With respect to claim 34, Landis discloses all of the elements discussed above, and also discloses at least one handle (4 or 5) mounted to the door (1), independent of the trigger.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-3 and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clavin (U.S. Patent No. 5,638,709) in view of Kennedy et al ("Kennedy", U.S. Patent No. 4,082,331). Clavin discloses a door system comprising a door (50) that swings between open and closed positions, a keeper (edge of 51), and a trigger actuated latch mechanism (12, 13). The trigger actuated latch mechanism includes a detent (13, 37) engageable with the keeper (edge of 51) and a trigger (40) operably connected to the detent. Actuation of the trigger (40) causes the detent (13, 37) to move from a latched position to an unlatched position allowing the door (50) to be opened. The detent is biased to the unlatched position (by 34). Clavin fails to disclose the door system to be in combination with a mine stopping.

Kennedy teaches a door system with a latch (9) in combination with a mine stopping. Using the trigger latch of Clavin in combination with the mine stopping in Kennedy allows for easy actuation of the door in the mine stopping. It would have been obvious to one having ordinary skill in the art to use a trigger latch in combination with a door system in a mine stopping to provide easy actuation of the latch.

With respect to claims 2 and 3, Clavin discloses the latch mechanism to include a sear (54) for holding the detent in the latched position. Actuation of the trigger releases the detent from the sear. The detent is spring biased to the unlatched position (by spring 34).

With respect to claim 14, Clavin discloses a door system comprising a door (50), a keeper (edge of 51), and a latch mechanism (12, 13). The latch mechanism includes a detent (13, 37) engageable with the keeper for latching the door in a closed position when the detent is in a latched, cocked position (shown in figure 3). A biasing member (34) biases the detent to an unlatched, un-cocked position. A sear (54) holds the detent in the cocked position and a trigger

(40) is operably connected to the sear for moving the sear away from the detent, causing the detent to move from the latched, cocked position (shown in figure 3) to the unlatched, un-cocked position. The mechanism is constructed so that upon actuation of the trigger (40), the detent remains in the unlatched, un-cocked position at least until the door is opened.

With respect to claim 15, Clavin discloses the sequence of actuating the trigger (40) to cause the detent (13, 37) to move to the unlatched, un-cocked position, releasing the trigger, and pulling the door to the open position.

With respect to claim 16, Clavin discloses closing the door (50) after the door has been pulled open to re-cock the mechanism so that the detent is re-cocked and prepared for actuation.

Claims 1, 12, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Landis in view of Kennedy. Landis discloses a door system comprising a door (1) that swings between open and closed positions, a keeper (25), and a trigger actuated latch mechanism (6, 7, 24). The trigger actuated latch mechanism includes a detent (24) engageable with the keeper (25) and a trigger (6, 7) operably connected to the detent. Actuation of the trigger (6, 7) causes the detent (24) to move from a latched position to an unlatched position allowing the door (1) to be opened. The detent is biased to the unlatched position (by 28). Landis fails to disclose the door system to be in combination with a mine stopping.

Kennedy teaches a door system with a latch (9) in combination with a mine stopping. Using the trigger latch of Landis in combination with the mine stopping in Kennedy allows for easy actuation of the door in the mine stopping. It would have been obvious to one having

ordinary skill in the art to use a trigger latch in combination with a door system in a mine stopping to provide easy actuation of the latch.

With respect to claims 12 and 13, Landis discloses the trigger (6 or 7) to be located on an inward side of the door, and a second trigger (other of 6 or 7) is located on an outward side of the door. The door includes an outward handle (4 or 5). The mechanism is constructed and configured so that a user can actuate the second trigger (other of 6 or 7) and thereafter pull on the handle without the detent moving back to the latched position.

(10) Response to Argument

Claims 1-3 and 14-16 are rejected by the combination of Clavin in view of Kennedy et al ("Kennedy").

With respect to claim 1, Appellant argues that there is no motivation or suggestion to combine Clavin with Kennedy, and that hindsight reconstruction was used in making the combination. Examiner respectfully disagrees. As noted in the Final Office Action, Clavin discloses each and every limitation of the latch mechanism in the claim, which Appellant does not contest, but fails to disclose the latch to be used in combination with a mine stopping. To remedy this, examiner has relied on the teachings of Kennedy, which shows that using a latch in a mine stopping is known in the art. The mine stopping is defined in the claim by name alone, and includes no further limitations. As such, the mine stopping appears to be nothing more than a door that is in a mine. The fact that the latch mechanism of Clavin is used on a door, to secure a door in a closed position, and to effectuate that opening of the door would enable one having ordinary skill in the art to recognize that such a latch can be used on many doors. The only

difference between the claimed mechanism and Clavin's latch is that the claimed mechanism is used in conjunction with a door in a mine, while Clavin is not. However, nothing in Clavin precludes such a use. Kennedy is cited to show that it well known to uses latches on mine stoppings, or doors, in mines. The combination results in the known latch mechanism of Kennedy being replaced with the known latch mechanism of Clavin. In Clavin, the catch, or keeper 51 and arm (detent) 13 are analogous to the keeper 17 and detent 11, 15 of Kennedy. One of ordinary skill in the art would recognize that one known latch may be replaced with another known latch to achieve an identical result.

Appellant further argues that the trigger in Clavin is recessed in a housing thereby making it difficult to see and use in a mine. Examiner notes that this argument appears to be narrower than the claim, as the location of the trigger relative to the housing is not claimed.

Appellant further argues that Kennedy teaches away from a combination with Clavin, in that Kennedy's latch was designed to withstand heaving of a mine floor and still operate. Examiner notes in Clavin, it appears that even if there were some heaving of the surrounding structure, for example, element 51, that the latch may still operate. Both Clavin and Kennedy show a latch to maintain a door in a closed position.

Appellant argues that claim 3, which depends from claim 1, overcomes the rejection for the same reasons as claim 1. The arguments regarding claim 1 are addressed above, and for these same reasons, claim 3 does not overcome the rejection.

With respect to claim 2, Appellant argues that the latch mechanism further includes a sear, and that the element 54 of Clavin that examiner identified as a sear does not meet this limitation. Appellant further argues that because the shoulder, or sear 54, and bolt, or detent 13,

37, do not contact each other, the trigger 40 cannot cause release of the detent from the sear. Examiner respectfully disagrees. It is noted that the claim does not require the sear and detent to be in contact with each other, as Appellant appears to argue. A sear is claimed only as "holding the detent in the latch position". In Clavin, the sear 54, holds the detent 13, 37, in the latched position by preventing element 12 from moving outward. Element 12 moves in a fixed manner with detent 13, 37. When the trigger 40 is actuated the detent 13, 37 is released from the restraining force provided by the sear 54. From this, Clavin shows each claimed limitation regarding the sear, trigger, and detent in claim 2. Examiner emphasizes that is no language in claim 2 that requires the sear and detent to be in direct contact as Appellant appears to argue.

With respect to claim 14, Appellant argues that the detent 13, 37 of Clavin is not movable between cocked and uncocked positions. As an initial note, examiner considers bolts 13, 37 of Clavin to be a "detent" because they meet the claimed limitations of the detent and they act to prevent opening the door to which they are attached. In the closed position, bolts 13, 37 act to detain the door from opening by acting against door frame 51. Further, examiner asserts that the detent 13, 37 of Clavin does move between cocked and uncocked positions. Specifically, as shown in figure 3 of Clavin, spring 34 acts against handle 12 which is fixed to detent 13, 37. In this position, the detent is cocked. The detent is uncocked in the position shown in figure 1. Here the spring no longer applies the cocking force to handle 12. It is also noted that Appellant did not provide any evidence or facts to refute examiner's position, which was also set for the in the Final Office Action, but only alleges that examiner's position isn't true, without providing any reasoning. It is clear from Clavin's figure 3 that spring 34 cocks the detent 13, 37 by acting

against handle 12. The detent remains in the cocked position until trigger 40 releases the handle 12.

Appellant argues that claims 15 and 16 are submitted to be patentable based on their dependency from claim 14. Arguments regarding claim 14 are addressed above.

Claims 1, 12 and 13 are rejected by the combination of Landis in view of Kennedy.

Appellant argues that there is no suggestion to combine Landis and Kennedy. Examiner respectfully disagrees. As noted in the Final Office Action, Landis discloses each and every limitation of the latch mechanism in the claim, which Appellant does not contest, but fails to disclose the latch to be used in combination with a mine stopping. To remedy this, examiner has relied on the teachings of Kennedy, which shows that using a latch in a mine stopping is known in the art. The mine stopping is defined in the claim by name alone, and includes no further limitations. As such, the mine stopping appears to be nothing more than a door arrangement that is in a mine. The fact that the latch mechanism of Landis is used on a door, to secure a door in a closed position, and to effectuate that opening of the door would enable one having ordinary skill in the art to recognize that such a latch can be used on many doors. The only difference between the claimed mechanism and Landis's latch is that the claimed mechanism is used in conjunction with a door in a mine, while Landis is not. However, nothing in Landis precludes such a use. Kennedy is cited to show that it well known to uses latches on mine stoppings, or doors, in mines. The combination results in the known latch mechanism of Kennedy being replaced with the known latch mechanism of Landis. In Landis, the catch, or keeper 25 and arm, or detent 24 are analogous to the catch 17 and arm 11, 15 of Kennedy. One of ordinary skill in the art would

recognize that one known latch may be replaced with another known latch to achieve an identical result. In the combination, the detent 24 of Landis would move vertically up and down, in and out of a keeper in the floor 5 of Kennedy.

Appellant further argues that Kennedy teaches away from a combination with Landis in that Kennedy's latch was designed to withstand heaving of a mine floor and still operate. Examiner notes in Landis, it appears that even if there were some heaving of the surrounding structure, for example, element 26, that the latch will still operate. Specifically, if element 26 were to be moved to the left or right in figure 1, the latch would still operate depending on the degree of movement, as detent 24 would still extend into keeper 25. Both Kennedy and Landis show a latch to maintain a door in a closed position.

Appellant argues that claims 12 and 13 are submitted to be patentable based on their dependency from claim 1. Arguments regarding claim 1 are addressed above.

Claims 28-34 are rejected under 35 U.S.C. 102(b) as being anticipated by Landis.

With respect to claim 28, Appellant argues that Landis fails to disclose a detent in a latch position being biased toward an unlatched position. Examiner respectfully disagrees. It is noted that claim 28 does not claim a combination with a mine stopping, but rather, only a door system. All references to a mine stopping are only an intended use of the door system. Also as noted in the Final Office Action, Landis discloses each of the claimed elements. Specifically, Landis shows a door frame with first and second (26) frame members. It is noted that while the first member is not shown in the drawings, it is inherent that the end of the door opposite of where the latching mechanism is must be attached to another, first, frame member. If the door

was not attached to a first frame member, then it would not be able to move between open and closed positions. Further, Landis shows a door (1) hingedly ("swinging") mounted on the first frame member, a keeper (25) on the second frame member (26), and a trigger actuated latch mechanism (6, 7, 24). The trigger actuated latch mechanism includes a detent (24, detains or prevents the door from opening) engageable with the keeper (25), and a trigger (6, 7) operably connected to the detent (via 9, 28, 29). In the latched position, the spring (28) biases the detent toward an unlatched position (toward the left in figure 1, column 2, lines 17-21). Actuation of the trigger (6 or 7) causes the detent (24) to move from the latched position (in figure 1) where the detent (24) engages the keeper (25) to an unlatched position (to open the door) where the detent is disengaged from the keeper.

Further regarding Appellant's argument that Landis fails to show a detent in a latched position being biased toward an unlatched position, examiner refers to column 2, lines 17-21 of Landis's disclosure. Here, Landis explicitly states "A secondary spring 28 is coiled about the plunger to normally urge the plunger inwardly toward the latch releasing position". The plunger is analogous to the claimed detent. Appellant's argument that the plunger, or detent 24 is biased toward the latch position when it is in the latch position appears to ignore the effect of the spring 28, and Landis's explicit disclosure the spring urges or biases the plunger to an unlatched position. While it is true that spring 9 also provides a biasing force in the opposite direction of spring 28, it does not preclude spring 28 from providing the claimed biasing force. By Appellant's argument, because a biasing force is overcome, it does not exist. Appellant reasons that because the force of spring 28 is canceled out or negated by main spring 9 that no biasing effects exists. This argument appears to contradict Appellant's own invention, where in the

latched position, a spring biases the detent toward an unlatched position. However, the biasing force of the spring is overcome, or negated by the surrounding structure, such as the sear 99. By Appellant's reasoning, because the spring force is overcome, there is no biasing effect acting on the detent. This is clearly not the case in Appellant's invention or in Landis. The mere fact that a biasing force is overcome does not preclude it from existing. In both, a spring provides a biasing force toward an unlatched position when the detent is in the latched position. The fact that the detent is maintained in the latched position by some other means, does not mean that a biasing force is not present.

With respect to claim 29, Appellant argues that a first frame member is not inherent in Landis because Landis fails to teach the first frame member is necessarily in opposed relation to the second frame member. Appellant notes that it is possible the first frame member is adjacent second door frame member 26. Examiner respectfully disagrees. The door in Landis is of a swinging type, as opposed to a sliding type, as evidenced by the linearly sliding bolt 24, which prevents swinging of the door in the locked position. Where ever the door is swingingly attached to, whether it be a left hand side of the door (from the view in figure 1) or a top or bottom the door, the member to which the door is swingingly attached is opposite the second frame member 26. Even if the first frame member where adjacent to the second frame member as Appellant argues is possible, the first frame member would still be in opposed relation, in that they are facing each other.

With respect to claim 30, Appellant relies on same argument set forth regarding claim 28, because the same features are claimed. Examiner incorporates the response to arguments regarding claims 28 above here.

With respect to claim 31, Appellant argues that the spring 9 of Landis is not equivalent the claimed sear, as examiner asserts. Appellant argues that a sear in the present invention is shaped to receive and hold the detent 51 in the cocked latch position. Examiner notes that spring 9 of Landis performs the identical function, and meets all the limitations of claims 31. Specifically, spring, or sear 9, of Landis maintains the detent 24 in a cocked position. The detent is cocked by spring 28. Sear 9 maintains this latched, cocked position until a trigger (6 or 7) is actuated. At this point, the detent (24) is released from restraining force provided by the sear. The claim is silent as to whether the sear is ever directly contacting, or moves in and out of contact with the detent. As such, the spring 9 meets all the claimed limitations of the sear.

With respect to claim 32, Appellant argues that to the extent this claim recites the same features as claim 28, this claim is unanticipated and allowable. Examiner respectfully disagrees and incorporates the response to Appellant's arguments regarding claim 28 here.

Additionally, Appellant argues that Landis fails to disclose a door system having a detent engageable with the keeper for latching the door in its closed position even during movement of the keeper relative to the door. Examiner respectfully disagrees. From Landis's figure 1, is clear the detent 24 extents linearly into the keeper 25 to latch the door. It is seen that the keeper 25 can move linearly, at least to a degree, and the closed latched position will be maintained. The keeper is capable of moving just short of the distance the detent extends there into and still maintain a latched position. Additionally, the keeper may also move laterally to certain extent and maintain a closed, latched position. Because at least some movement of the keeper is possible, while maintaining the door in a closed position, the argued limitation is met.

With respect to claim 33, Appellant argues that to the extent this claim recites the same features as claim 31, regarding the sear, that this claim is unanticipated. Examiner incorporates the response to Appellant's arguments regarding claim 31 above here, and asserts the Landis does in fact show a sear to the extent that it is claimed.

With respect to claim 34, Appellant argues that to the extent this claim recites the same features as claim 28, this claim is unanticipated and allowable. Examiner respectfully disagrees and incorporates the response to Appellant's arguments regarding claim 28 here.

Appellant further argues that Landis fails to disclose a door system having a handle mounted on the independent of the trigger. Appellant reasons that because the triggers 6, 7 are axially received with the handles 4, 5, that the handles are not mounted on the door independent of the trigger. Examiner respectfully disagrees. The handles 4, 5 of Landis are mounted on the door by screws 20 and 21, respectively. The handles do not depend on the triggers 6, 7 to be mounted to the door. In other words, the handle may be mounted to the door by screws 20 and 21 even if the triggers weren't present. While it may be true that the triggers are not mounted independent of the handles, this is not what Appellant has claimed. The trigger appears to depend on the axial opening in the handle to be mounted. However, Appellant has claimed that the handle is mounted on the door independent of the trigger. As shown in figure 1 of Landis, the handle in no way depends on the trigger where it is mounted on the door by screw 20 or 21, and is thus mounted independent of the trigger.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

mk
Michael J. Kyle
July 7, 2006

Conferees:

Judy Swann

Darnell Jayne

Chuck Y. Mah
Primary Examiner